Patent claims

1. A radio module (5) having a radio device (10), an internal microprocessor device (20) connected to the radio device and an interface (30) which is connected to the microprocessor device and has connection pins (S1, ..., S8) for connecting the radio module to at least one external electrical apparatus (50, 100, 110, 120, 130), where the radio module is designed such that it has at least two modes of operation in which it can be operated, specifically
   - a passive mode of operation, in which
     - an external microprocessor device (50) is connected to the radio module as an external electrical apparatus,
     - the radio module is used as a modem for the external microprocessor device, and
     - the radio module can be actuated by the external microprocessor device using modem actuation signals, preferably AT commands,
   - and at least one active mode of operation, in which
     - at least one actuator (100) or sensor (110) is connected to the radio module as an external electrical apparatus,
     - the radio module actuates and/or reads the at least one actuator or sensor and for its part can be actuated externally via the radio device,

   characterized in that
   - the electrical assignment of the connection pins is designed to be reconfigurable such that the microprocessor device uses at least one connection pin (S1, S2, S3, S4) both for the passive mode of operation and for one of the active modes of operation.

2. The radio module as claimed in claim 1,

characterized in that

- the microprocessor device is programmed with at least two software programs (200, 250), among which
  - one software program (250) forms the operating system of the radio module, which stipulates the electrical assignment of the connection pins for each of the at least two modes of operation of the radio module, and
  - at least one further software program forms application software (200) which stipulates the respective mode of operation of the radio module.

3. The radio module as claimed in claim 2, characterized in that

- the application software can be altered externally by the user, whereas the operating system cannot be altered by the user.

4. The radio module as claimed in claim 3, characterized in that

- the operating system (250) is formed by firmware.

5. The radio module as claimed in claim 3 or 4, characterized in that

- the application software is interpreter software, preferably on the basis of the programming languages Basic or Java®.

6. The radio module as claimed in one of the preceding claims, characterized in that

- the application software and the operating system are separate from one another such that
  - the radio device and the interface can be actuated exclusively by the operating system, and

- the application software can access the interface and the radio device exclusively under the switching and control of the operating system, and
- the application software is prevented from accessing the interface and the radio device directly.

7. The radio module as claimed in one of the preceding claims,
characterized in that
- the passive mode of operation is stored entirely in the operating system.